AMENDMENT AND RESPONSE
Serial Number: 10603215
Filing Date: June 26, 2003
Title: METHOD OF PRE-ANALYSIS OF A MACHINE-READABLE FORM IMAGE

Page 6
Dkt: 76.U08

REMARKS/ARGUMENTS

Claim Changes and Support

Claim 1 is amended to clarify the invention and to remove typographical errors. Support for the amendment can be found in the original claim 1. Thus, no new matter is added.

Claims 6 and 7 are amended to clarify the invention.

Claim 19 is cancelled.

Claim 20 has been newly added. Support for the new claim can be found at least on page 8, lines 1-3 of the specification as filed. Thus, no new matter is added.

Objection to the Specification

On page 2, paragraph 5 of the Office Action, the Examiner states that the amendments filed on August 20, 2009 adds new matter to the specification which is not supported by the original disclosure. Applicant respectfully disagrees.

Applicant respectfully states that the support to the amendments filed on August 20, 2009 can be found in the originally filed claim 1. Specifically, the originally filed claim 1 recites "performing graphic image turn from the current position to the preliminarily assigned direction on angle 90° and further returning to the previous step in the case of the image identification reliability level on the previous step being lower than the predetermined level thereof," which supports the amendment to the specification filed on August 20, 2009. Thus, the Examiner is requested to withdraw the objection to the specification.

Objection to the Claims

In response to the objection to claim 1 for informalities, Applicant has corrected typographical errors for clarity as requested.

Rejection of claims 1, 3, 6-9, 11-13, 16, 18 and 19 under 35 U.S.C. § 112, second paragraph

Examiner, on page 4 of the Office Action states that Applicant's claim 1 recites "parsing a form image into region" which is indefinite.

AMENDMENT AND RESPONSE
Serial Number: 10603215
Filing Date: June 26, 2003
Title: METHOD OF PRE-ANALYSIS OF A MACHINE-READABLE FORM IMAGE

Page 7
Dkt: 76.U08

To remedy the rejection, Applicant has amended claim 1 to recite a use of "parsing the form image into regions." Further, Applicant has added a new claim 20, which elaborates more on the regions being parsed. Accordingly, Examiner is requested to withdraw the rejection on claim 1, 3, 6-9, 11-13, 16, and 18 under 35 U.S.C. § 112, second paragraph.

Claim 19 is cancelled. Therefore, the rejection of claim 19 is now moot.

Rejection of claims 1, 3, 7, 8, 11, 16, 18, and 19 under 35 U.S.C. § 102(e) as being anticipated by USPN 6,993,205 (Lorie).

Applicant respectfully traverses in part and amends in part. Applicant has amended the claims to clarify the invention. Applicant therefore respectfully requests reconsideration of the rejection of claims 1, 3, 7, 8, 11, 16, 18, and 19 under 35 U.S.C. § 102(e) as being anticipated by Lorie.

Claim 1 includes the following limitations:

A method for a machine to perform machine-readable form analysis comprising

preliminarily assigning at least one form object as a graphic image for identification of a spatial orientation of a form during pre-recognition analysis;

preliminarily creating at least one spatial orientation model of the said graphic image for identification of the spatial orientation of the form during pre-recognition analysis;

parsing a form image into regions;

determining the spatial orientation of each region of the parsed form image, comprising:

(a) detecting on the form image at least one of said graphic images for identification of the spatial orientation of the form;

(b) determining the spatial orientation of the form image based on a comparison of the detected graphic image with the spatial orientation model;

(c) rotating the form image by 90°; and repeating step (b), in case of said comparison between the detected graphic image and the spatial orientation model yielding a match that is below a predetermined level.

(Claim 1, underlined for emphasis)

Arguments for claim 1 in view of Lorie

Applicant has carefully reviewed the subject application and the cited art i.e. Lorie and has amended the independent claim 1 to include a limitation that is not disclosed by Lorie. In particular, the independent claim 1 has been amended to recite that the method is performed "during pre-recognition analysis." Applicant respectfully states that Lorie solves the problem of conventional OCR systems and increases orientation recognition by concentrating upon the differences *in the character recognition results* obtained from correctly oriented and incorrectly oriented text blocks (Col. 3, lines 7-11, Lorie). In other words, Lorie focuses on performing the character orientation during the recognition stage unlike Applicant who claims that the method is performed "during pre-recognition analysis," as recited in the amended independent claim 1. Further, the method described in Lorie enables inverted text blocks to be detected based on the results from the character recognition (Col. 3, lines 7-10, Lorie) which means that the text blocks in Lorie are recognized during or after the process of character recognition. On the contrary, the Applicant claims "pre-recognition analysis" i.e. the text image is recognized before the character recognition analysis begins.

Further, Applicant respectfully disagrees with the statement in item 9, page 5 of the Office Action that Lorie describes "preliminarily creating at least one spatial orientation model of the said graphic image for identification of the spatial orientation." The cited passage, in contrast, discloses "a conventional confidence recognition engine [that] outputs an initial image recognition confidence with respect to a character or stream of characters being recognized (e.g., the text block)." It is to be understood that Applicant claims "preliminarily creating at least one spatial orientation model of the said graphic image" whereas Lorie does not disclose this at all.

AMENDMENT AND RESPONSE
Serial Number: 10603215
Filing Date: June 26, 2003
Title: METHOD OF PRE-ANALYSIS OF A MACHINE-READABLE FORM IMAGE

Page 9
Dkt: 76.U98

The Office Action seems to be arguing that "character recognition engine comprises models of text in their correct orientation for use in comparison with input text blocks" however misses the point that Applicant claims "_preliminarily creating at least one spatial orientation model of the said graphic image._"

Furthermore, Further, Applicant respectfully disagrees with the statement in item 9, page 5 of the Office Action that Lorie describes "rotating the form image by 90°." The cited passage, in contrast, discloses "the image would be rotated 180 degrees in item 15 and OCR would be performed on the rotated image (Col. 5, lines 31-34, Lorie). Lorie does not explicitly disclose that the form image is rotated by 90°, as claimed by the Applicant.

Therefore, Lorie does not disclose the limitations of independent claim 1, as argued above.

Dependent claims 3, 7, 8, 11, 16, 18 and 19 depend from, and include all the limitations of independent claim 1, which is shown to be allowable for the reasons given above. Therefore, Applicant respectfully requests the reconsideration of dependent claims 3, 7, 8, 11, 16, 18 and 19 and requests withdrawal of the rejection.

Rejection of claim 9 under 35 U.S.C. § 103 (a) as being unpatentable over USPN 6,993,205 (Lorie) in view of USPN 5,461,459 (Muramatsu)

Dependent claim 9 depends from, and includes all the limitations of independent claim 1, which is shown to be allowable for the reasons given above. Therefore, Applicant respectfully requests the reconsideration of dependent claim 9 and requests withdrawal of the rejection.

Acknowledgement of Allowable Subject Matter

Applicant thanks the Examiner for indicating the allowability of claims 6, 12, and 13 once amended to be rewritten in independent form to include the limitations of the base claim

AMENDMENT AND RESPONSE
Serial Number: 10603215
Filing Date: June 26, 2003
Title: METHOD OF PRE-ANALYSIS OF A MACHINE-READABLE FORM IMAGE

Page 10
Dkt: 76.U08

and any intervening claims. Applicant defers amending the claims to give the Examiner the opportunity to consider Applicant's remarks enclosed herein.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Such action is earnestly solicited by the Applicant. Should the Examiner have any questions, comments, or suggestions, the Examiner is invited to contact the Applicant's attorney or agent at the telephone number indicated below.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 503437.

Respectfully submitted,

Konstantin Zuev

By his Representatives,

Hahn and Moodley LLP

P.O. Box 52050

Minneapolis, MN, 55402

650-796 5417

Date _____ April 26, 2010 _____   By ___ /Vani Moodley/ _____

Vani Moodley

Reg. No. 56631